

## Metadata Details

### Title

Satellite-based DEM for monitoring Antarctic ice topography, with a special focus on glaciers

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### Science Keywords

|                 |                          |
|-----------------|--------------------------|
| Category        | Cryosphere               |
| Topic           | Sea Ice                  |
| Expedition Year | 2017-2018 <br> 2018-2019 |
| ISO Topic       | Environment              |

### Summary

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#### Abstract

The cryosphere plays a central role in the Earth's radiation due to the presence of ice and snow. Its glossy surface reflects much of the incoming solar radiation, which regulates the air-sea heat budget. Increasingly sophisticated satellite technology in the last several decades has enabled researchers to monitor the cryosphere on a routine basis. The recent findings in elevation changes at Antarctic evidently show the crucial need for more cryospheric data and research. This project will focus on the generation of accurate DEMs and velocity maps of glaciers nearby Schirmacher Oasis near Maitri station and Larsemann Hills near Bharati station region using Cartosat, ICES at, INSAR and ground GPS values.

#### Purpose

Mapping velocity of parts Lambert glacier, Polar Record glacier and Potsdam glacier using SAR interferometry. Generation of DEM for the Polar Record Glacier and Potsdam glacier

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### Data Center